

ELECTRIC VEHICLES Linking Federal and Local Objectives

Sacramento, California
January 31, 1996

EV Market Launch



EV Market Launch

It's a privilege to be here in (insert local community), and it's a pleasure to be working with our partners, the Electric Transportation Coalition and Electric Vehicle Association of the Americas. My talk will be about why it's important for your community to become EV-ready.

You've heard about the national need to promote advanced technologies to reduce our dependence on imported oil, to clean up our air, and to generate economic growth.

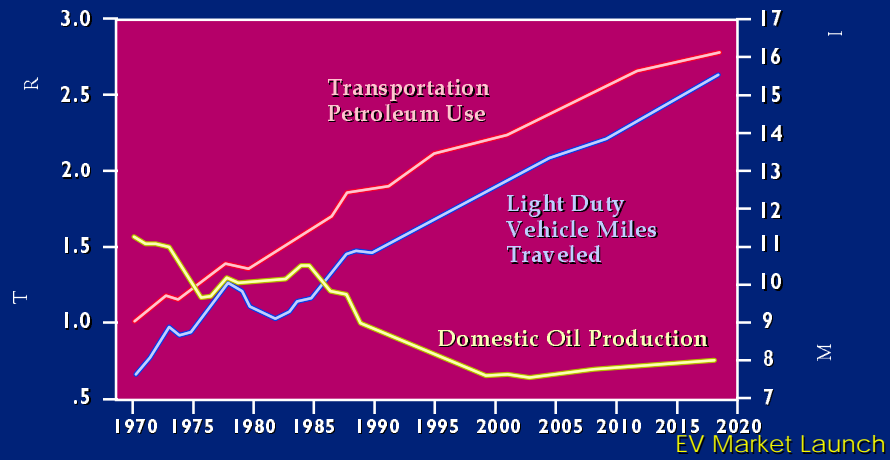
The short answer to "Why do we need to become EV- ready?" is: If your community doesn't become ready to accept electric vehicles, we will miss those goals.

If we're not EV-ready, we'll have technology in the laboratories--and the automobile manufacturers and other folks will have spent millions of dollars developing that technology--and it will just sit there.

We need your community to become EV-ready to get those vehicles out on the road.



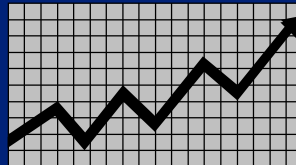
Petroleum Dependence Trends





Energy Policy Act Alternative Fuel Goals

- 10% U.S. Motor Fuel Consumption to be Alternative Fuels by 2000
- 30% U.S. Motor Fuel Consumption to be Alternative Fuels by 2010



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Finally, as we reach the top of our building blocks towards reaching our national goals of deploying alternative fuel and electric vehicles, we're very concerned about reaching national goals set by the Energy Policy Act for displacing the petroleum.

These are very ambitious goals. If accomplished, they would ensure that ten percent of our motor vehicle use would be alternative fuel by 2000, and 30% by 2010.

That's a tremendous number of vehicles displacing a tremendous amount of fuel.

We can't get there without individual communities like this becoming EV-ready.

Steps to EV Deployment

- Research & Development
- Prototyping
- Utilization
- Testing
- Public Awareness
- Infrastructure Development
- Commercialization

EV Market Launch

You know the steps to deployment of electric vehicles start in the laboratory with research and development, and of course there's proto-typing and pilot production.

Then we move into the utilization phase, like the preview program that was just featured, where we have vehicles out on the road, but they're not yet in your dealership.

At the same time, we have to have infrastructure development; development of the charging stations.

Finally, we move to commercialization, so you can buy those vehicles in your retail dealerships.

Federal EV Programs



- Advanced Batteries
- Light-duty Vehicles R&D
- Field-testing
- Infrastructure
- Deployment



- Policy research
- Safety research
- EV bus program
- CMAQ funding

Department of Energy EV Market Launch - 1996

- EV Field Operations
- Fleet Leadership
- Clean Cities



EV Market Launch

Let me talk a little bit about what's happening with electric vehicles from the Department of Energy's perspective in 1996.

You've heard some discussion about our EV Site Operator program.

We're also doing Federal purchases,

working on infrastructure development, and, of course,

building our Clean Cities program.

Now a little about each one of these.

EV Field Operations

- Baseline Testing
- Field/Reliability Testing
- Infrastructure Development/Evaluation

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The **Site Operator program** is one of the steps in a move towards EV deployment.

It allows us to do **base-line testing** and **field testing** to make sure that the vehicles are meeting the expectations of the manufacturers, and--more importantly--meeting the expectations of the customers.

You, as a community, may very well be participating in the **Electric Vehicle Site Operator Program**, and we welcome that.

At the same time, the Site Operator program allows us to understand better the needs of infrastructure development from a fleet perspective as those vehicles are used.

EV Field Operations Baseline Testing - 1996

- Testing of 8 -10 New Vehicles
- OEM Vehicles
- QVM Vehicles
- Some Conversions
- Focus on Vehicles with Advanced Batteries

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In 1996, the Site Operator Program will be undertaking significant new responsibilities. Baseline testing, conducted with the EV America Program, is important to validating vehicle performance to satisfy customer needs.

We'll be testing Original Equipment Manufactured (OEM) vehicles and Qualified Vehicle Modifier (QVM) vehicles. We expect to test as many as 8-10 new vehicles, some with lead acid batteries and some with nickel metal high-drive batteries.

We hope to be some of the recently announced General Motors S-10 pick-up truck, as well as other OEM vehicles soon to be announced.

1996 will see domestic and foreign manufacturers vehicles in the baseline testing.

EV Field Operations Field Testing/Reliability - 1996

- Complete Field Testing of 15 Conversion Vehicles
- Procure & Test up to 10 New Vehicles (depending on availability)
- Reliability and Life-cycle Testing of Advanced Batteries when Available

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For **field testing**, we take the next step and put EVs into small fleets for real-life testing. This provides valuable data and customer feedback.

we'll be able to complete our field testing of 15 converted electric pick-ups,

we'll be able to procure and begin field testing for up to 30 new vehicles. With recent announcements by General Motors of the availability of new vehicles, we hope to field test some of the first models.

we'll procure and start testing vehicles with advanced batteries as soon as they become available.

EV Field Operations Infrastructure Development/Evaluation - 1996

- Cooperative effort with EPRI on charger test evaluation for the Infrastructure Working Council
- Clean Cities/"EV-Ready" City Workshops
- Southern California Economic Partnership
- International Energy Agency

EV Market Launch

In terms of infrastructure development, you are participating, here today, in one of the 10 EV-ready workshops that will be our major thrust in 1996 to help develop infrastructure for electric vehicles.

At the same time, we're continuing our work with the Infrastructure Working Council, the Electric Power Research Institute on charger testing and evaluations, and other standards of development that will help move the industry forward.

Southern California Economic Partnership (SCEP) Support.

International Energy Agency (IEA) Common Infrastructure Development.

- Standards
- Safety
- Regulations
- Technical training
- Public information

Fleet Leadership *Promoting AFV/EV Acquisition*

■ Federal Government	1993
■ State Government	1996
■ Fuel Providers	1996
■ Local Government	Voluntary
■ Private	Voluntary



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Fleets play an important role as technology leaders in transportation. They buy vehicles often, they replace them regularly, they're aware, and they're knowledgeable of the technologies. So, what concentrating on fleets allows us to do is demonstrate the viability of technologies and pave the way for broader acceptance in the residential consumer market.

The other thing that fleets allow us to do, is to catalyze the market of refueling and infrastructure for alternative fuel and electric vehicles.

There are a lot of fleets out there. The Federal government has been leading the way since 1993 with the purchase of alternative fuel vehicles for its fleets. Several State governments have individual programs that have been going on for some time.

However, in the Energy Policy Act, there was an additional requirement for States to acquire alternative fuel vehicles, and that will kick in in 1996.

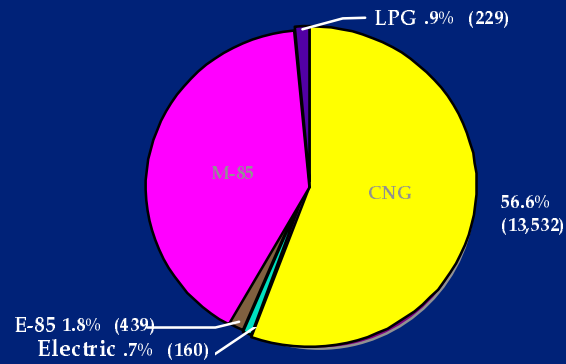
Under that same regulation, alternative fuel providers--such as electric utilities--will be acquiring alternative fuel vehicles at fixed percentages starting in 1996.

Local government fleets and private fleets are currently participating in a voluntary way.

The Energy Policy Act does allow us to implement regulations requiring local government and private fleets to acquire alternative fuel vehicles, but that rule-making is at a very early stage, and it is too soon to tell when that rulemaking will go into effect.

Federal Fleet AFVs At End Of Fiscal Year 1995

TOTAL: 23,905



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By the end of 1995, we had over 20,000 alternative fuel vehicles, with most of them being natural gas.

In both situations, the number of electric vehicles is in the hundreds.

We would like to change that in 1996, and see if we can't get the number of electric vehicles in the Federal fleet up to the thousands.

EVs for Federal Agencies

- DOE - \$2 Million
- DOD - \$5 Million
- GSA Solicitation
- Light trucks and sedans (if available)
- Proposed Executive Order

EV Market Launch

On Federal agencies:

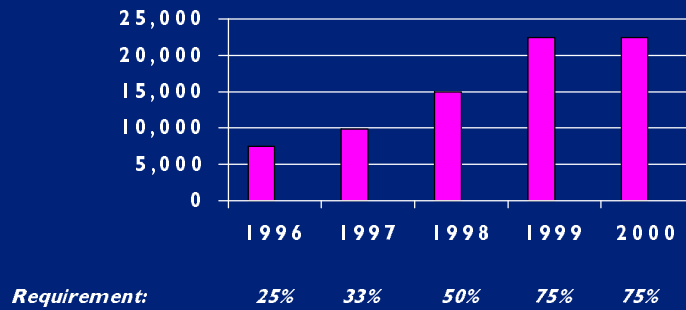
The Department of Energy is proud to be able to steer approximately two million dollars to the purchase of electric vehicles for the Federal agencies in 1996.

Most of these vehicles will be purchased or leased by the General Services Administration, and made available to local Federal agencies for operation in your community.

We will be targeting our vehicles to join the 20,000 other alternative fuel vehicles in the Federal fleet.

We'll be marking those vehicles for the ten cities identified for the electric vehicle infrastructure workshops in 1996.

Federal AFV Acquisitions Fiscal Years 1996-2000

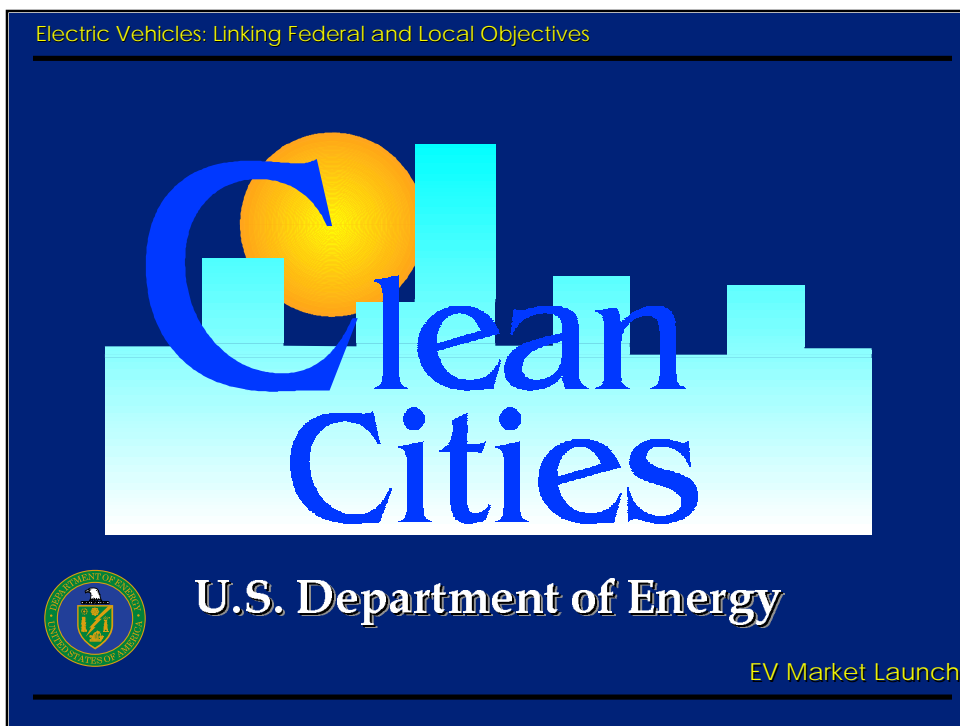


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As part of the Energy Policy Act, the Federal government is heading down a road to purchase 75% of all of its light-duty vehicles as alternative fuel by the year 1999.

That's a tremendous buying boost for the alternative fuel market.

As your community becomes EV-ready, that enables us to steer electric vehicles in the Federal fleet to your community to help base-load the infrastructure.



The Department of Energy has found our **Clean Cities program**, started in 1993, to be very successful.

The Clean Cities program is held together by the ongoing commitments of many volunteer stakeholders.

As you know here, in (insert local community), there are a lot of benefits and features to our Clean Cities program that enable you to determine your goals for alternative fuel vehicles, including electric vehicles, and to marshall the resources to put those vehicles onto the road.



Designated Clean Cities



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We're proud of the fact that the Clean Cities program is a nation-wide network, there to provide you with the resources that you need in your local community.

We now have over (insert Clean Cities number at the time - it's 43 right now) Clean Cities across the country.

Through DOE, these cities come together electronically, physically and in conferences to share experiences and know-how to help each other make each community ready for alternative fuel and electric vehicles.



What is *Clean Cities*?

- Community planning to create an alternative fuels market
 - ▶ Local needs - local initiative
 - ▶ Partnerships
- Supports technologies in transition
- Promotes market sustainability

EV Market Launch

The primary goal is to combine government objectives for fuel diversity, air quality and economic opportunity with commercial objectives and voluntarily commitments from fuel suppliers, vehicle suppliers, and fleet owners to form critical, locally-based partnerships.



Clean Cities & Evs

- 10 "EV-Ready" City Workshops
- Technical Assistance
- National Network
- Public Information Resources
- Funding Assistance
- National Conference (June 18-21, Atlanta, GA)

EV Market Launch

Finally, regarding our Clean Cities efforts in electric vehicles:

1996 will be a banner year for the Clean Cities program as it relates to electric vehicles.

As many of you know, the Clean Cities program has done a fantastic job of bringing in the natural gas folks over the last couple of years. They've been very aggressive, and I think maybe 1996 is an opportunity for the electric utility industry to step up and join the Clean Cities program in a similarly aggressive manner.

In addition to hosting the five workshops that are part of the EV Market Launch, we'll be working directly with committed local communities, such as (____), that want to move forward with electric vehicles.

Type list of Cities and Dates here.....

- conferences
- people
- contacts
- Marketing information
- workshops



Clean Cities Funding Assistance

- State and Local Incentives Programs
 - State Energy Program -1996
- Pilot Program -1995
 - \$2.1 Million / 19 State Projects
- Community Assistance
- EPACT Tax Credits and Deductions

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We would like, as was pointed out this morning, to be able to provide incentives for communities to convert to alternative fuel vehicles, as we've been able to do in the past. Let me just highlight some of the things that are going on.

Under the Energy Policy Act, there is some grant funding for alternative fuel vehicles. As of the 1996 fiscal year, Congress has integrated those programs into a program of energy block grants that go to the State governments. We have information about that program, and we want to get that into your hands as part of this effort to become EV-community-ready.

As an example of what we've done with these funds in the past, we have had about 2.1 million dollars allocated to 19 projects, and we are working with the State governments to help to make these projects successful. A lot of that money has gone to some electric vehicle projects.

In addition, other kinds of incentives that are available to your community, if you become EV-ready, are some tax credits and deductions available under the Energy Policy Act. I won't go into detail on those here, but you can get a fair amount of money, up to \$4,000 back, on electric vehicle conversion.

Department of Transportation EV Market Launch - 1996

- National Strategy
- EV Bus Program
- ISTEA Funding



Department of Transportation Strategic Goals

- Safe, efficient transportation system
- Promotes economic growth
- Contributes to healthy & secure environment



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Alternative fuel vehicle programs strongly support Secretary Pena's mission and strategic goals for the Department of Transportation.

(review bullets)

They also help us

“invest strategically in transportation infrastructure”

“actively enhance our environment through wise transportation decisions

“create a new alliance between the nation's transportation and technology industries”

“tie America together through an effective intermodal transportation system”

Federal Transit Administration EV Bus Program

■ Highlights

■ Santa Barbara

- ▲ 1 million passengers in 1st year
- ▲ 435,000 miles; 81,000 hours
- ▲ 3.8 million passengers total
- ▲ 15 buses on order



Federal Transit Administration

EV Bus Program

Continued

► Electric & Hybrid Electric Bus R&D

- ▲ Calstart
- ▲ NY State Consortium
- ▲ ATTB
- ▲ DUETS



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ISTEA Resources

Intermodal Surface Transportation Act of 1991

- FTA EV bus program
- Federal Highway CMAQ funds
- Coordinate with Clean Air Act
- Re-authorization in 1997



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ISTEA forms the basis for many of the Department's surface transportation programs, including the Federal Transit Authorities EV bus program, and the Congestion Mitigation and Air Quality Program under the Federal Highway Administration.

ISTEA implementation is closely coordinated with the Clean Air Act Amendments of 1990 which establishes the basic framework for dealing with vehicle pollution in the most heavily polluted metropolitan areas. Working under this framework, state and local governments have enjoyed substantial flexibility in addressing air quality issues in their specific regions. Alternative fuel programs are eligible, but to date have been a small fraction of CMAQ programs.

Re-authorization of ISTEA will present some intriguing and difficult policy issues regarding the future emphasis of our transportation investments. Intermodalism, economic growth, local vs. national priorities, are examples of these tough issues. Electric vehicle policy issues should also be raised and addressed.

Federal Assistance

■ Placement of EVs	DOE; GSA
■ EV Testing	DOE; DOT
■ Funding	Clean Cities; DOE; DOT
■ Technical Assistance	DOE
■ Safety Standards	DOT/NHTSA
■ Information Materials	Hotline / DOE



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We in the Federal government can help you with the placement of electric vehicles by the Federal agencies. We want to coordinate the placement, by the GSA, the Postal Service, the Defense Department, and the Department of Energy with the vehicles that you will be acquiring in your community. Be sure and contact us as you begin to make your plans. You can also contact GSA.

If we work together we can maximize the use of publicly available refueling infrastructure.

If you need funding, and who doesn't, give us a call. We can't promise you that we will have funding, but through the Clean Cities network; through the Department of Energy block grants; through the Department of Transportation CMAQ funding, there may be some funding that could be steered towards alternative fuel programs. If you don't ask, you won't get any.

We want to provide technical assistance to your community as you move forward. Certainly your local utilities are your experts on infrastructure development, but if there's a technical question, please give us a call.

And, if you need information materials: i.e., documentation, availability of vehicles, range, or emissions results, please call our Hotline-or call us directly to get that kind of information.

How to Reach Us



- | | |
|--|-------------------------------|
| ■ Clean Cities | ■ Research & Special Projects |
| ▶ 1-800-CCITIES | ▶ Bill Vincent 202-366-4831 |
| ■ Data Center | ■ FTA |
| ▶ http://www.afdc.doe.gov | ▶ Shang Hsiung 202-366-0241 |
| ■ Hotline | ■ FHWA |
| ▶ 1-800-423-1DOE | ▶ Mike Savonis 202-366-2080 |
| ■ Headquarters | ■ NHTSA |
| ▶ Marcy Rood 202-586-8161 | ▶ Charles Hott 202-366-0247 |
| ▶ afv.deployment@hq.doe.gov | |
- EV Market Launch

And here's how you can reach us:

You can send e-mail to us directly at headquarters;

You can call our 1800 Clean Cities hotline; or

You can call the regional support office, at (insert local office for that community).

If you're on the net, you can log in to the Alternative Fuel Data Center (AFDC) World Wide Web site and get a copy of the materials for this workshop, as well as all the other reports and documentation on alternative fuel vehicles; and, of course,

there's our 800 Hotline.

ETC

EVAA



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